DATA SHEET

SENCITY® Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)

86010142

Properties

- The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with GNSS.
- It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380–960 / 1710–3800 MHz and GNSS.
- The product fulfils the requirements according to EN 50155 and EN45545.



Electrical data	
Frequency	1559 MHz - 1609 MHz
Gain	25 dB ±2 dB
Noise figure	< 2 dB
VSWR	< 1.8
Operation voltage	3.3 .... 5.5, ripple < 50 mV, supplied at inner conductor RF output
Operation current	≤ 30 mA
Connector input	TNC female
Connector output	N female
Dimensions	70mm x 22mm x 50mm
Mounting	4 holes, 4.5 mm diameter 4 holes, 0.2 inches diameter

Electrical remarks

The maximum input power at the input of the amplifier at the frequency range 380 - 960MHz and 1710 - 3800 MHz is limited to +25 dBm.
The noise level at the GNSS frequency generated by the operation at the frequency range 380 - 960 MHz and 1710 - 3800 MHz should not exceed the thermal noise level at the input of the GPS Amplifier, otherwise the noise figure will be increased.

Mechanical remarks

It is necessary to use four fixing screws to mount the LNA in case the installation height is more than 2 m.
The system operator (receiver) needs to secure a current limit of < 1000 mA

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Environmental data	
Operating Temperature	-25 °C ... 40 °C
Extended operating temperature	-40 °C ... 85 °C

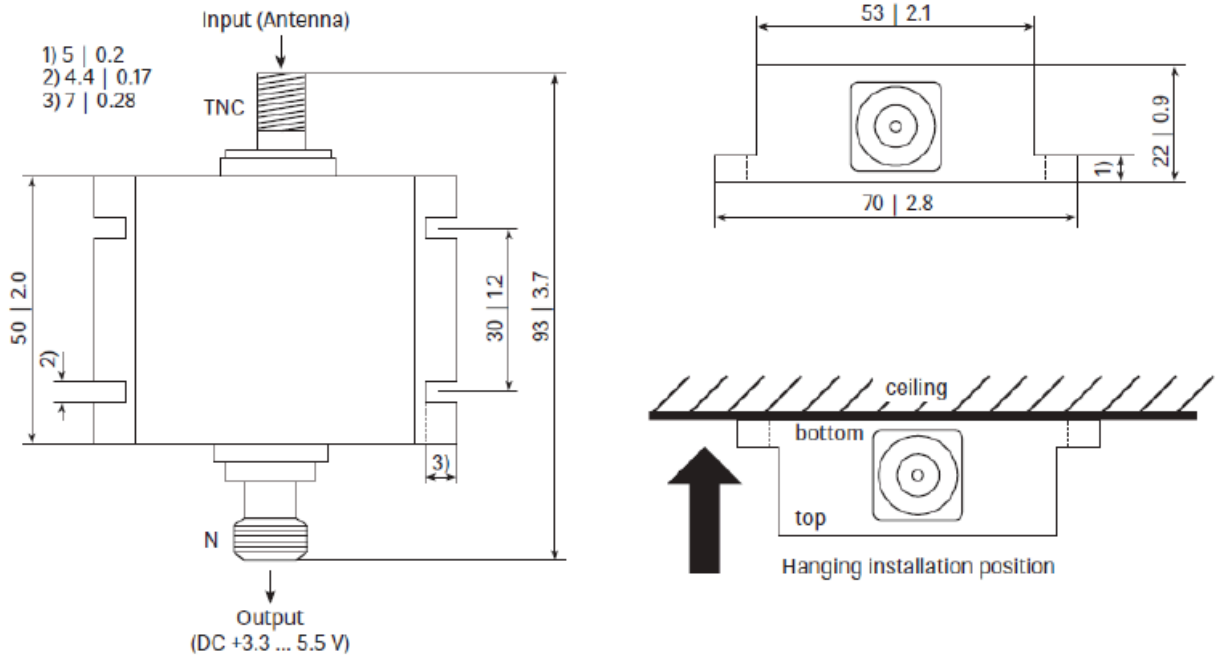
Environmental remarks

Extended range of operation:
Within an extended temperature range of -40° C ... +85°C and an extended supplied voltage range of 3.0 V ... 6.0 V operation is possible with the following restrictions:
Noise figure: < 2.5 dB
Gain: > 20 dB

Ordering Information Table

Item number	Item description
84460305	86010142

Layout



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